

Isokern® VENT-FREE Gas Firebox

Installation, Operation, Maintenance and Owner's Manual Isokern Vent-Free Models 81036, 81042 & 81046

A Product of EARTHCORE® INDUSTRIES, LLC

Be Sure to Read Entire Manual Before Beginning Construction.

Contents of this manual may change without prior notification.

Do not install the Vent-Free Gas Firebox in a manufactured home or mobile home or recreational vehicle.

IMPORTANT: This manual contains assembly rules, installation steps and guidelines, use and maintenance instructions for the Isokern Vent-Free Gas Firebox (Vent-Free Series). This manual must become the property of and be reviewed by all current and future users of this product. It is the responsibility of the distributor, general contractor and the installer of this product that the instructions in this manual are followed exactly and, further, that the allowed gas log appliance used in this product be installed in strict accordance with the gas log manufacturer's listing and explicit installation and operation instructions.

**THESE FIREBOXES ARE DESIGNED FOR USE WITH:
PROPANE (LP) or NATURAL GAS (NG) ONLY**

**FOR USE ONLY WITH DECORATIVE TYPE CERTIFIED VENT-FREE GAS LOG.
DO NOT BUILD A WOOD FIRE.**

WARNING: **FIRE OR EXPLOSION HAZARD**

Failure to follow safety warning exactly could result in serious injury, death, or property damage.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- IF YOU SMELL GAS: Do not try to light any appliance; Leave the building immediately; Do not touch any electrical switch; Do not use any phone in your building; Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions; If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.



Intertek

SBCCI NO. 9626
INTERTEK TESTING SERVICES REPORT NO. 13001A-764
ICC Report NO. ESR-2316

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**INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.**

THIS MANUAL CAN ONLY BE REPRODUCED IN ITS ENTIRETY

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General Information

INTENDED USE STATEMENT

The Vent-Free Gas Firebox is a modular refractory masonry unit designed for field assembly. The unit consists of interlocking precast parts, which are glued together using Earthcore Mortar supplied with the unit. The parts of the system are cast using a proprietary mixture of volcanic pumice aggregate and aluminate cement. Each piece is intended for a specific part of the enclosure and is designed such that only one means of assembly is possible. The system includes all the parts necessary for the assembly of a complete masonry vent-free decorative gas log enclosure.

In addition to the basic enclosure, a minimum standard one and one-eighth inch (1-1/8") thick, high temperature refractory brick is required to line the interior of the firebox.

Vent-Free decorative gas log sets are supplied by others and are limited to any listed vent-free gas-fired log sets with heat input ratings up to 40,000 BTU/hr.

PRODUCT DESCRIPTION

The Vent-Free Firebox has been evaluated and listed by Intertek Testing Services (Warnock Hersey International) in accordance with ANSI Z21.91 2007 and is intended for use as a "zero clearance" rated enclosure when used with any listed unvented or dual listed gas log set that has a maximum input rating of 40,000 BTU/hr. This firebox has been tested and approved in accordance to ANSI Z21.97 for outdoor applications. (Physical size limitations apply. Refer to minimum firebox requirements supplied with log heater.) The Vent-Free decorative gas logs chosen must meet the appliance manufacturer's minimum size dimension requirements for installation in this enclosure.

WARNING: Any application other than the intended use stated herein is in violation of the manufacturer's instructions and is hereby prohibited. Such violation may cause immediate hazard, property damage or loss of life and will void all liabilities to the manufacturer and will void all warranties explicit or implied.

WARNING: These models CANNOT be installed in a bedroom unless maximum BTU rating of installed vent-free log set is less than 10,000 BTU/hr.

FOUNDATION REQUIREMENTS

Wood floor framing systems are suitable foundations for the Vent-Free firebox. Because the Vent-Free firebox is listed for "zero clearance" at the unit bottom, sides, back and top, it may sit directly upon wood sub-flooring.

The Vent-Free firebox weighs approximately 750-900 lbs. (excluding gas log appliance and finish trim). Since this weight is spread over an area of seven and one-half square feet (7.5 sq. feet) to nine and one half square feet (9.5 sq. feet) depending on the standard unit size chosen, it is necessary that any wood floor framing where this unit is placed be designed to carry concentrated loading of approximately 150 lbs/sq. foot.

Standard residential concrete slab is a suitable foundation. This may be either a structural off-grade slab or a structural slab-on-grade.

BEFORE BEGINNING THE INSTALLATION:

Read these instructions carefully before beginning the installation of this Vent-Free firebox. Also read the gas log appliance manufacturer's literature regarding sizing and suitability for installation into this enclosure prior to installation. (Look for gas log appliance manufacturer's label "A.G.A. Certified Vent-Free Gas Log.")

Since it is not possible to adequately define all installation and use circumstances in this manual be sure to check with and strictly adhere to local building codes and ordinances governing installation, inspection and use of gas fired equipment. In the absence of local codes, the installation and use of this Vent-Free Firebox – and the certified unvented gas log appliance placed in it – must be in accordance with each manufacturer's explicit installation instructions and must conform with National Fuel Gas Code, ANSI Z21.11.2 2013, NFPA 54.

Local building and safety codes shall govern issues relating to the suitability of the use of unvented appliances as well as to room size requirements. Prior to purchase and installation, it should be determined if unvented gas log heaters are suitable to the proposed application where health matters are concerned.

NOTE: You may need to provide combustion and ventilation air from an outside source to adequately satisfy local codes.

Non-combustible hearth extensions are not required in front of the Vent-Free Firebox. However, it is the responsibility of the installer to refer to the Vent-Free gas log manufacturer's explicit installation instructions regarding their requirements for non-combustible hearth extensions. Requirements may vary among Vent-Free gas log manufacturers.

Refer to local codes governing the need for hearth extensions for Vent-Free gas log enclosures.

Safety Instructions

STATE OF MASSACHUSETTS

The installation must be made by a licensed plumber or gas fitter in the Commonwealth of Massachusetts. Vent-Free gas products are prohibited for bedroom and bathroom installation in the Commonwealth of Massachusetts.

WARNING: This product contains or generates chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate or service this firebox. Improper use of this firebox can cause serious injury or death from fire, burns, explosions and carbon monoxide poisoning.

DANGER: CARBON MONOXIDE POISONING MAY LEAD TO DEATH!

This firebox is an unvented product and should be installed by a qualified service person.

Propane (LP) gas and natural gas (NG) are both colorless and odorless gases. An odor-making agent is added to each of these gases to help you detect a gas leak. However, the odor added to these gases can fade and gas may be present even though no odor exists.

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble flu symptoms, including headaches, dizziness or nausea. If you have these signs, the fireplace may not have been installed properly, get fresh air at once! Have the firebox inspected and serviced by a qualified service person or your gas supplier. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung diseases or anemia, people at high altitude or under the influence of alcohol. Earthcore Industries strongly recommends the use of a carbon monoxide detector/alarm device wherever gas-fired appliances are in use.

All parties either involved in or associated with the installation, service and use of this firebox must read this entire manual. Keep this manual for reference and as a guide book to safe operation of this firebox.



WARNING: This unit is not for use with solid fuel.

1. Always check local building codes governing fireplaces and fireplace installations. The Vent-Free Series installation must comply with all local, regional, state and national codes and regulations.
2. The Vent-Free Series are listed for use with the decorative gas log appliance only.
3. For propane (LP) use do not place propane supply tank(s) inside any structure. Locate propane supply tank(s) outdoors. To prevent performance problems, do not use propane fuel tank of less than 100 lbs. capacity.
4. Do not install the Vent-Free Gas Firebox in a manufactured home or mobile home or recreational vehicle.
5. This firebox reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Firebox will remain hot for a time after shutdown. Allow surfaces to cool before touching.
6. Turn the Vent-Free Gas Firebox off and allow to cool before servicing. Always shut off any electricity and gas to the Vent-Free Gas Firebox while working on it. Only a qualified service person should install, service or repair this firebox. Have your fireplace inspected annually by a qualified service person.
7. Keep all combustible material, gasoline and other flammable liquids at a safe distance from the fireplace. Do not use the fireplace where these items are used or stored. Decorations, clothing and other such combustible items should not be placed on the fireplace.
8. Do not use the Vent-Free Series to cook food or burn paper or other objects.
9. Do not use any solid fuels – wood, coal, paper, cardboard, etc. – in this firebox. Use only the gas type listed on the unvented gas log heater label.
10. Keep all insulation and vapor barriers a minimum of three inches (3") away from all Vent-Free Series and Direct-Vent chimney components.
11. This American Gas Association fact sheet provides an overview of the requirements for the electrical bonding of fuel gas piping systems to the electrical grounding system based on ANSI Z223.1/NFPA 54, National Fuel Gas Code - 2015 (NFGC). The bonding requirements in previous code editions, in local jurisdictions or in specific situations, may differ.
12. Do not pack or fill required air spaces with insulation or other material. No material is allowed in these spaces.
13. Do not use a fireplace blower insert, heat exchanger or any other product not specified by the manufacturer herein for use with this fireplace.
14. Do not use any Vent-Free Series decorative appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

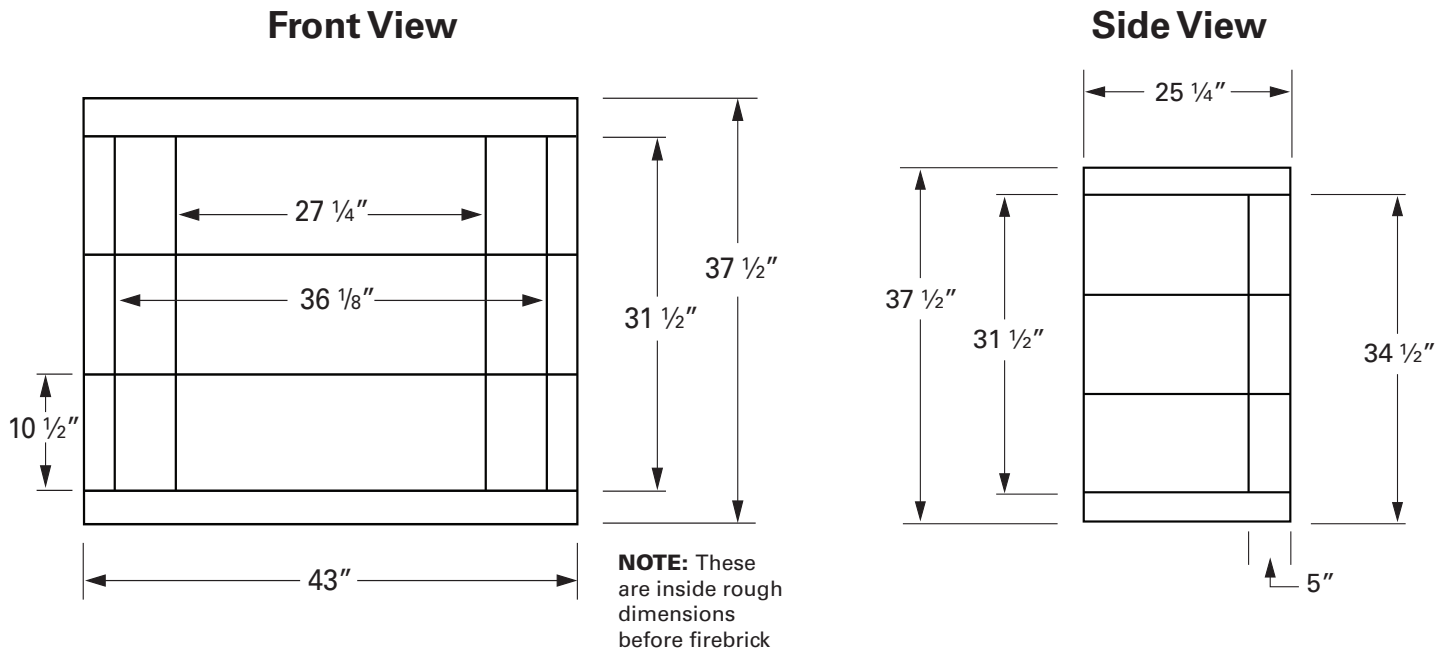
Safety Instructions

- 15.** The Vent-Free Series is not intended to heat an entire home or to be used as a heat source.
- 16.** Children and adults should be alerted to the hazards of high surface temperature and should stay away from this appliance to avoid burns or clothing ignition.
- 17.** Young children should be carefully supervised when they are in the same room as the appliance. Toddlers, young children and others may be susceptible to accidental contact burns. A physical barrier is recommended if there are at-risk individuals in the house. To restrict access to the fireplace, install a adjustable safety gate to keep toddlers, young children and other at-risk individuals out of the room and away from hot surfaces.
- 18.** Clothing or flammable material should not be placed on or near the appliance.
- 19.** Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
- 20.** Installation and repair should be done by a qualified service person.

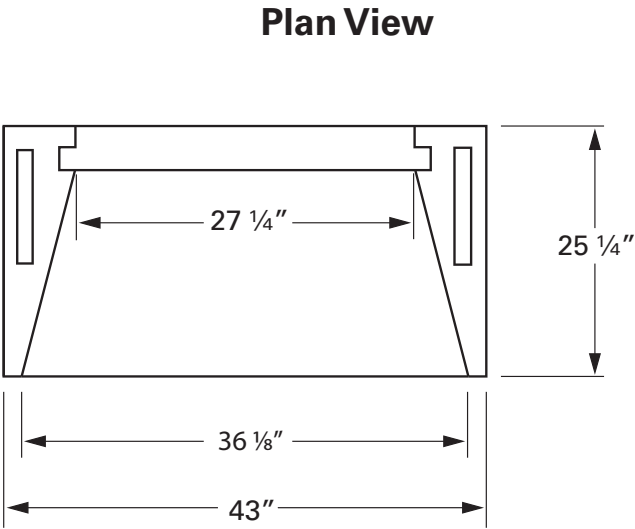
Warnock Hersey Listing Label

 <p>Intertek W/N 04830 DO NOT REMOVE OR COVER THIS LABEL ESR-2316</p>	<p>MODEL <input type="checkbox"/> M3600 <input type="checkbox"/> M4200 <input type="checkbox"/> M4600</p> <p>Ventless Firebox Enclosure for Gas-Fired Decorative Type Unvented Room Heaters</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;">WH-</div>	 ISO KERN® <input type="checkbox"/> MADE IN USA <input type="checkbox"/> MADE IN DENMARK
<p>TESTED TO ANSI Z21.91.-2007. May be installed at zero clearance to combustibles from floor, sides, rear, and top. Combustible mantles must be at least 12 inches above opening top. Decorative facing in contact with opening front must be non-combustible material. Fireplace screens or equivalent means designed to prevent unintentional access into the firebox interior, must be provided. For use with listed ANSI Z21.11.2 unvented decorative room heaters not to exceed 40,000 Btu/hr (11 723 W).</p> <p>WARNING: DO NOT BUILD A FIRE IN THIS ENCLOSURE-INSTALL ONLY ANSI Z223.1. LISTED UNVENTED GAS-FIRED APPLIANCES IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS PROVIDED WITH THIS ACCESSORY AND THE GAS APPLIANCE.</p> <p style="text-align: center; padding-top: 20px;">A Product of Earthcore Industries, Jacksonville, Florida</p>		

Vent-Free Series 36" (81036) Firebox Dimensions & Component List

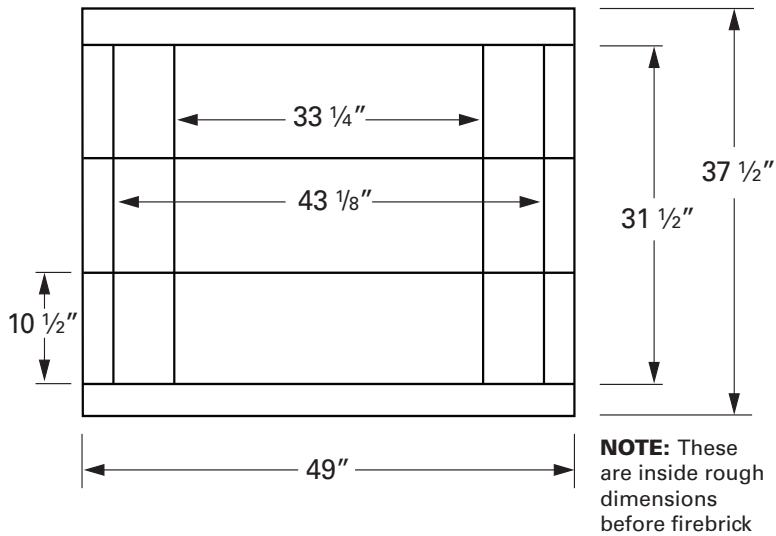


Component	Part#	Description
	21	Base & Top Plate (Qty. 2)
	20	Side wall (Qty. 6)
	25	Back wall (Qty. 3)

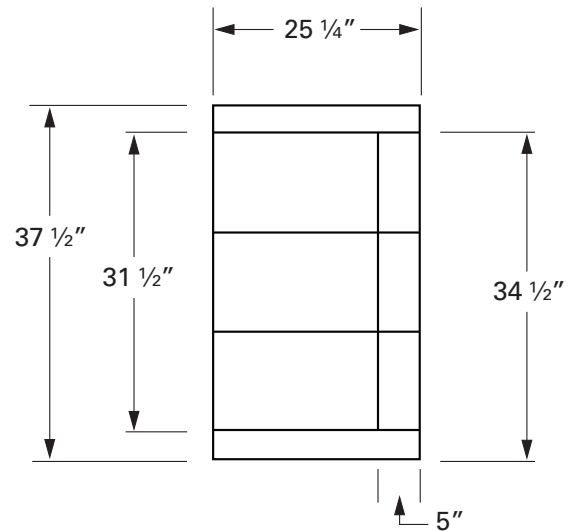


Vent-Free Series 42" (81042) Firebox Dimensions & Component List

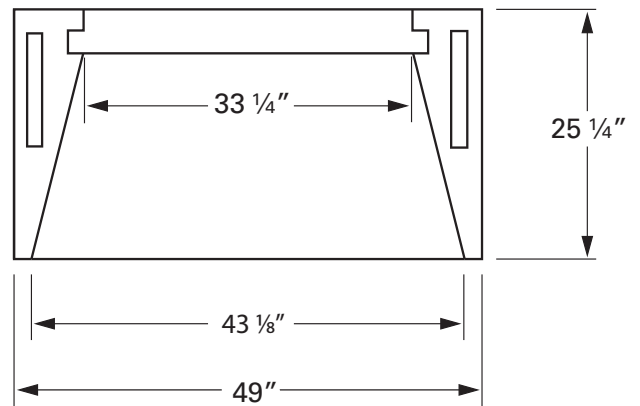
Front View



Side View



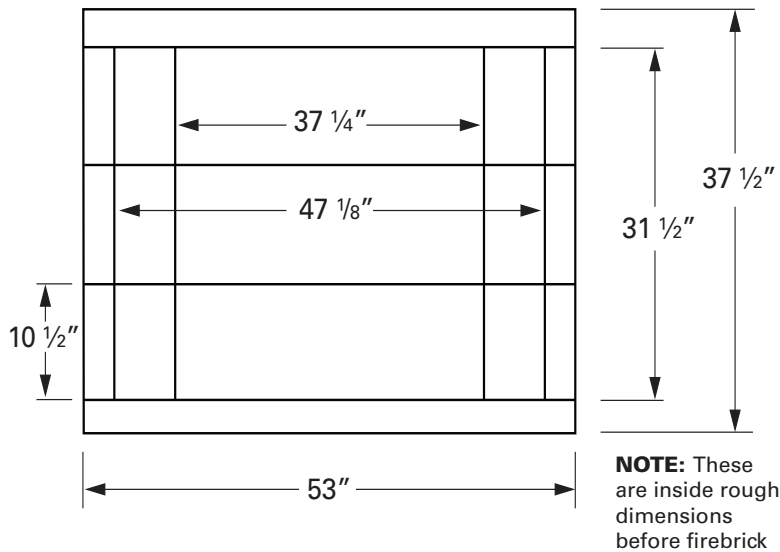
Plan View



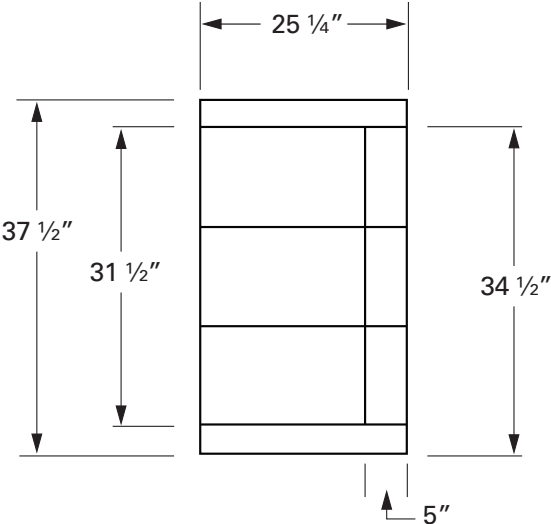
Component	Part#	Description
	22	Base & Top Plate (Qty. 2)
	20	Side wall (Qty. 6)
	28	Back wall (Qty. 3)

Vent-Free Series 46" (81046) Firebox Dimensions & Component List

Front View



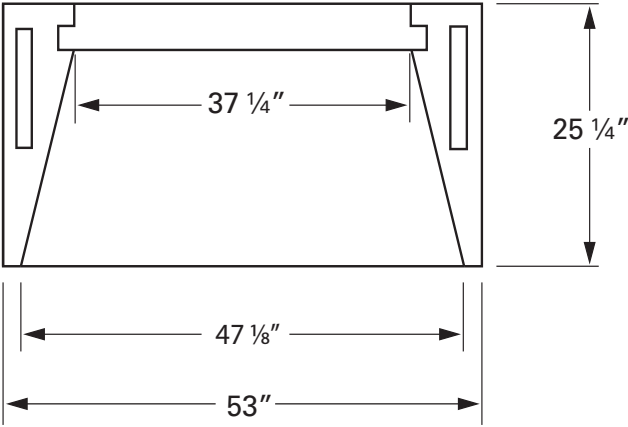
Side View



NOTE: These are inside rough dimensions before firebrick

Component	Part#	Description
	23	Base & Top Plate (Qty. 2)
	20	Side wall (Qty. 6)
	31	Back wall (Qty. 3)

Plan View



Required Clearance to Combustibles & Rough Framing Dimensions

FIGURE 1

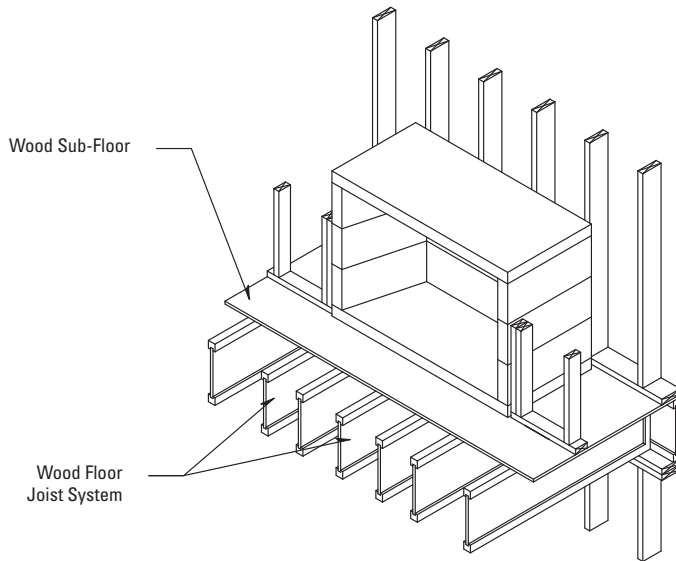


FIGURE 2

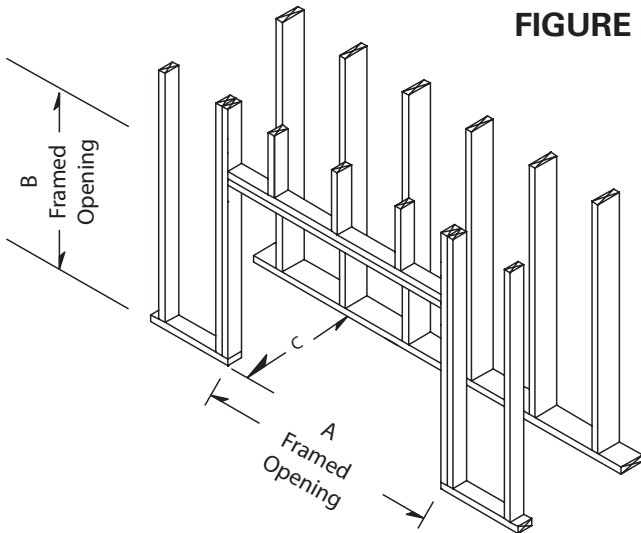
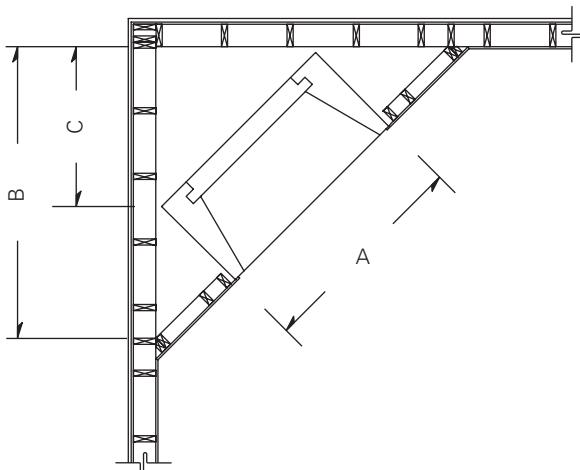


FIGURE 3



CLEARANCE TO COMBUSTIBLES

The Vent-Free Firebox may be installed at **“zero clearance”** to plywood sheathing and to un-insulated wood framing members at the unit bottom, sides, rear and top when used for enclosing any listed unvented gas-fired log set with maximum heat input ratings up to 40,000 BTU/hr. (Reference Intertek Testing Services Report No. 13001A-764.) **(Figure 1).**

However, when a Vent-Free Firebox is to be installed on carpeting, tile, or any combustible material other than wood flooring or concrete, the Vent-Free Firebox shall then be installed on a metal or wood panel extending the full width and depth of the Vent-Free Firebox.

NOTE: Keep all insulation material to a minimum of three inches (3”) away from the outside surfaces of the Vent-Free Firebox.

TYPICAL INSTALLATION FRAMING DIMENSIONS (Figure 2)

Vent-Free	Width - A	Height - B	Depth - C
Model 36	43"	37 ½"	25 ¼"
Model 42	49"	37 ½"	25 ¼"
Model 46	53"	37 ½"	25 ¼"

NOTES:

1. B includes the 3" thick base plate.

2. "Raised hearth" requires additional rough opening height at B equal to the height of the raised hearth detail.

CORNER INSTALLATION FRAMING DIMENSIONS (Figure 3)

Vent-Free	A	B	C
Model 36	43"	49 ¾"	32 ½"
Model 46	49"	52 ¾"	37"
Model 48	53"	54 ¾"	39½"

NOTES:

1. B reflects the Vent-Free Series outside center of firebox base plate to inside corner of frame wall.

2. C dimension reflects the distance from the corner of the firebox positioned 1 1/2" from frame wall to inside corner of frame wall.

3. D dimension reflects the distance from the inside frame wall perpendicular to the firebox to the inside corner of the frame wall. (Based on 2" frame wall).

General Assembly Instructions

When beginning the assembly process, mix the Earthcore Mortar with clean water to a smooth, workable texture (without lumps or dry pockets) of a “toothpaste” consistency. This mixture is suitable for application onto Isokern components by using a masonry grout bag supplied with the unit.

Attention should be paid that the mortar mixture is not too thin or runny, as this will not allow the mortar to reach its maximum bonding strength.

Mark out the position of the base plate on the supporting floor system. Apply a thin layer of Earthcore Mortar to the area and set base plate in the mortar (**Figure 4**).

Earthcore Mortar is then squeezed from a grout bag onto the contact surfaces of the Isokern components as they are fitted together.

NOTE: It is important that a 1/2” bead of mortar is piped onto all the components’ contact surfaces, about 1/2” in from all edges (**Figure 5**).

When setting the next component onto the mortared contact surface of the base plate, some mortar should squeeze out along the face of the entire joint as a sign of complete and proper sealing of the joint.

On broader contact surfaces, it is advisable to apply several additional 1/2” beads of the Earthcore Mortar to the area to assure proper sealing of the joint.

Properly mortared firebox and smoke dome assembly requires approximately 100 pounds (dry measure) of Earthcore Mortar.

LEVELING AND ALIGNING COMPONENTS

Be sure to assemble all Isokern components level and flush with adjoining components.

Earthcore Mortar is not intended to create a mortar joint of any thickness for leveling purposes.

Therefore, leveling and alignment adjustments are made by the use of small plastic shims supplied with the unit (Figure 6).

The shims can be inserted under a component to level and align it with adjacent Isokern components. Be sure to re-grout any and all gaps resulting from shim insertion to maintain components to full bearing.

BROKEN COMPONENTS

Components can be repaired by using Earthcore Mortar along the break line as the component is set into place. Components broken into multiple small pieces should be discarded and replaced.

IMPORTANT:

1. Do not mix Earthcore Mortar with anti-freeze agents.
2. The maximum recommended mortar joint thickness at Isokern components is 1/4”.

FIGURE 4

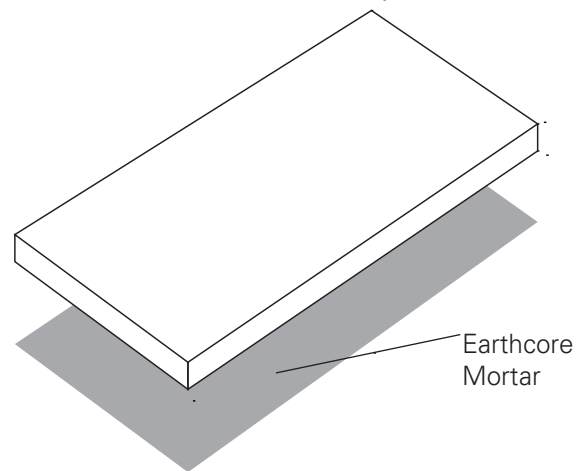


FIGURE 5

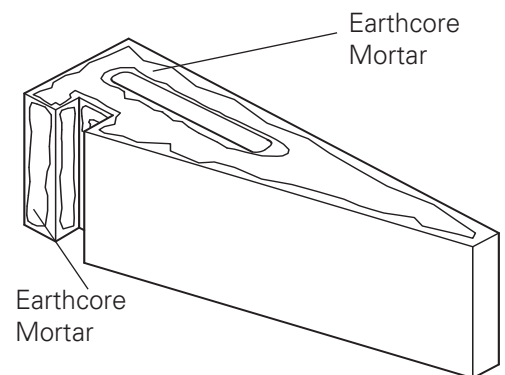
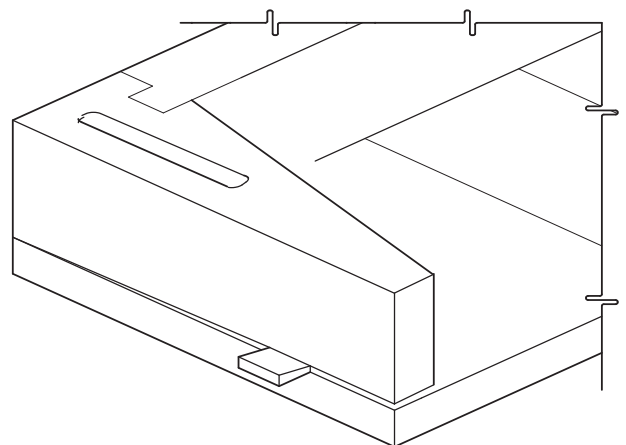


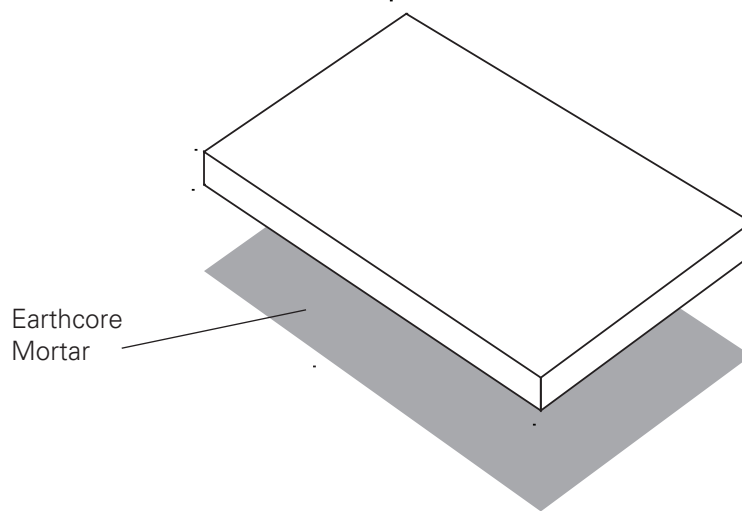
FIGURE 6



Assembly Instructions

1. Begin assembly by setting the Vent-Free Firebox's three-inch (3") thick base plate flat on a suitable level surface at zero clearance. This surface can be a concrete slab or a wood floor system capable of 150 psf loading. The base plate can also be set on a concrete block raised base or on a raised wood platform, either of which can be built upon a structural slab or upon a structurally suitable wood floor system. Do not set the base plate so that it is in span (**Figure 7**).

FIGURE 7



2. Next, set the first course of back wall and side walls into place. It may be convenient to scribe the location of the first layer of side walls and back wall on the base plate and then apply Earthcore Mortar to these scribed areas on the base plate, where the side walls and back wall will sit. In this way, the first layer of walls can be set directly into grout already applied to the base plate.

Be sure to grout the vertical joints where the side wall to back wall connect as each component is joined to its mate. Look for mortar to squeeze out of all contact joints as a sign of proper and complete sealing of the joints (**Figures 8 & 9**).

FIGURE 8

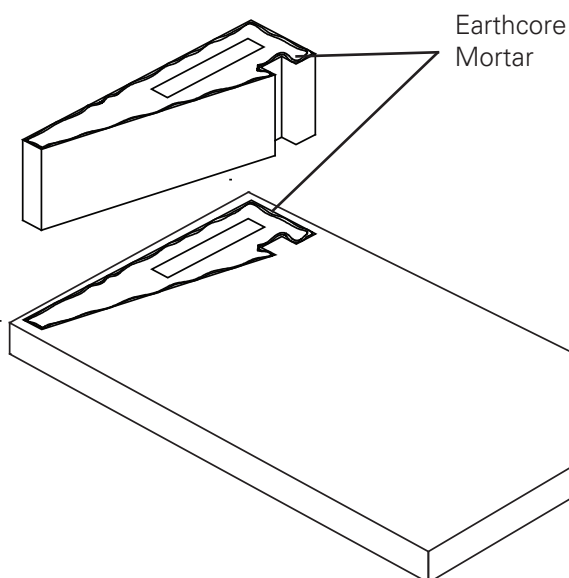
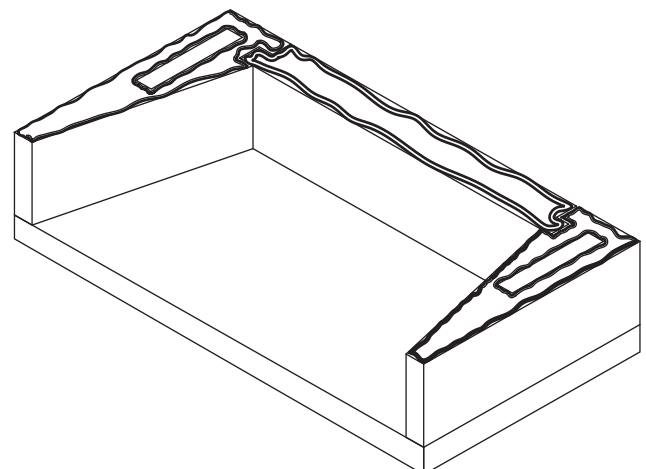


FIGURE 9



Assembly Instructions

3. Continue with the sequential assembly of the second and third courses of the side walls and back wall by first applying grout to the top of the previous layer, setting the next course into the grout already applied to the horizontal contact surface of the component below. Again, be sure to apply grout to the vertical joints of the side wall to the back wall connection, as each component is joined to its mate. Look for some mortar to squeeze out along all joints as a sign of proper sealing of the joint (**Figure 10**).

4. Once the third or top course of side walls and back wall are set in place, their top surfaces are to be grouted with mortar to receive the Vent-Free Firebox top plate. Set the top plate upon the completed side wall/back wall assembly seeing to it that the grouted contact surfaces are properly sealed. This completes the assembly of the Vent-Free Firebox rough box components (**Figure 11**).

NOTE: Make sure that the rough box assembly has been set level and square. Adjust to level and square, as necessary, while mortar is still wet. Make a final inspection of all contact joints to be sure they are properly sealed. Re-grout any and all gaps as necessary.

The manufacturer requires a minimum one and one eighth inch (1-1/8") thick fire brick as a liner to the inside of the Vent-Free Firebox. Thicker rated fire brick may be used as an option. Also, the pattern for the fire brick interior lining is not specified and is to be at owner option.

FIGURE 10

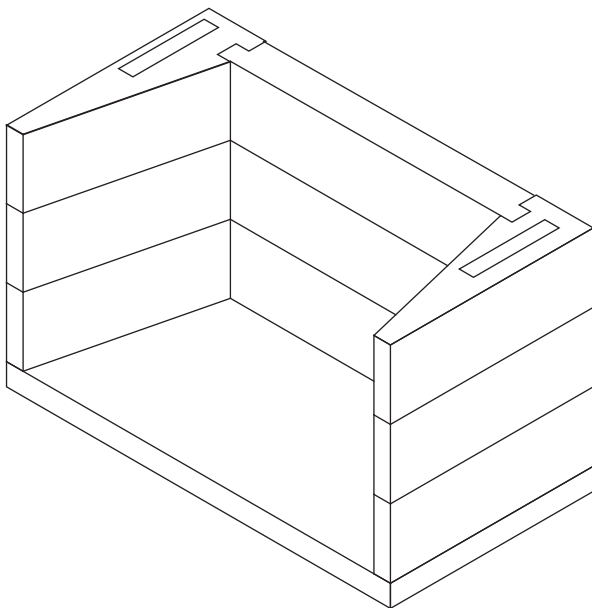
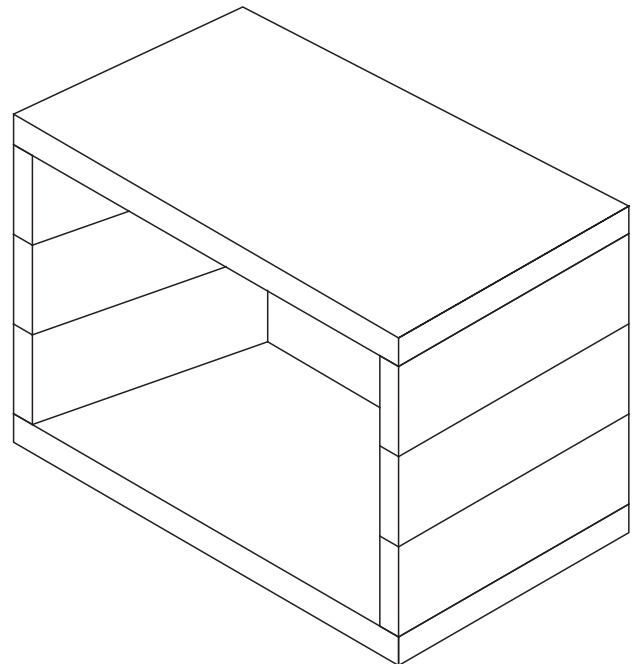


FIGURE 11



Raised & Flush Hearth Application

For a raised hearth (floor of the firebox elevated above the room's floor), the Vent-Free base plate can be set on a concrete block platform that is built up to the desired raised hearth height on the concrete support slab (**Figure 12**).

When calculating raised hearth height, be sure to allow for the three inch (3") thick base plate plus the one and one-half inch (1-1/2") thick fire brick floor in addition to the height of the concrete block platform. CMU used for base plate support should be rated ASTM 90.

For a "flush hearth" (firebox floor flush with the room's floor), the base plate can be omitted from the assembly, and the firebox walls can be built directly on the concrete support slab as long as there are no wood underpinnings. This makes the firebox finished fire brick floor approximately one and one-half inches (1-1/2") above the top of the concrete support slab. For installation directly on a combustible floor, the base plate must be used (**Figure 13**).

FIGURE 12

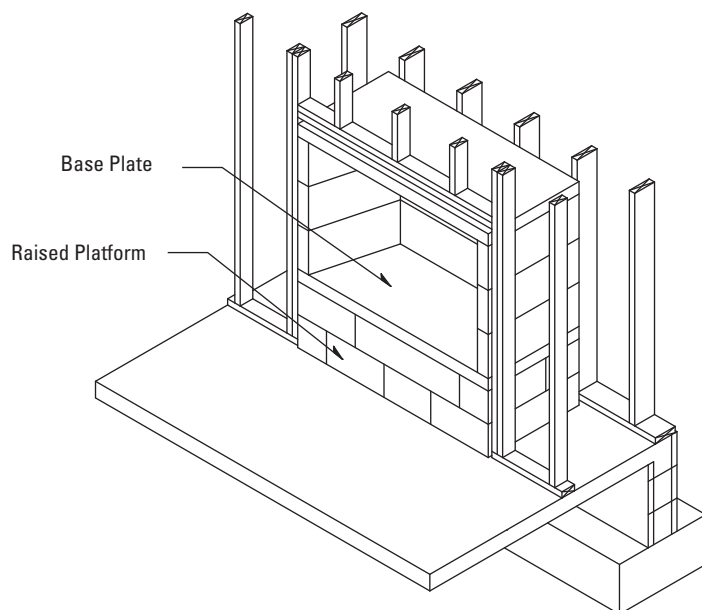
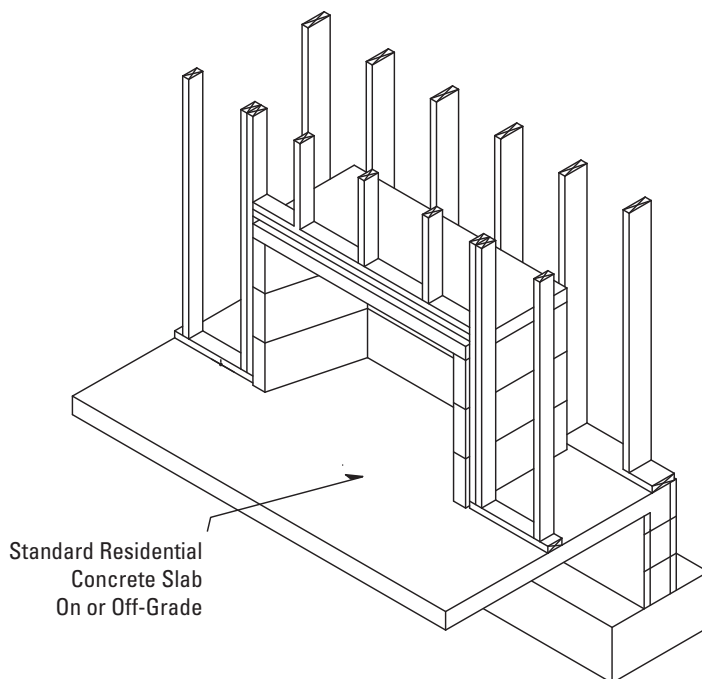


FIGURE 13



Custom See-Thru Application

See-Thru or two-sided Vent-Free Fireboxes can be constructed from the standard one-sided unit components with the addition of three (3) back wall pieces. The back walls will be custom cut and used as the sides walls.

In this installation, the standard side wall components are eliminated, and custom cut back walls are used for the side walls. The back wall components need to be cut down the 25 1/4" and used for the side walls (**Figure 16**).

NOTE: Two pieces of steel angle iron (3" x 3" x 1/4") cut to span the firebox openings should be set on top of the side wall assembly on both sides before the top plate is set into place (**Figure 14**).

Vent-Free	A	B
Model 36	43"	33"
Model 42	49"	39"
Model 46	53"	43"

FIGURE 14

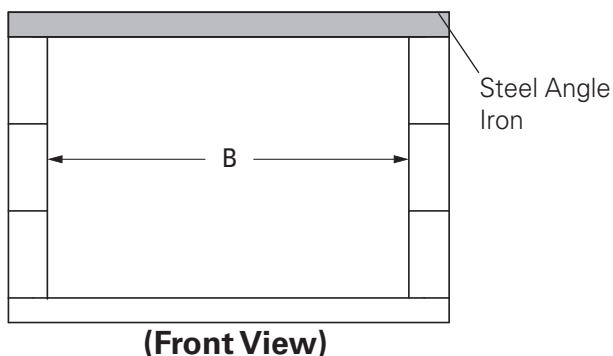


FIGURE 15

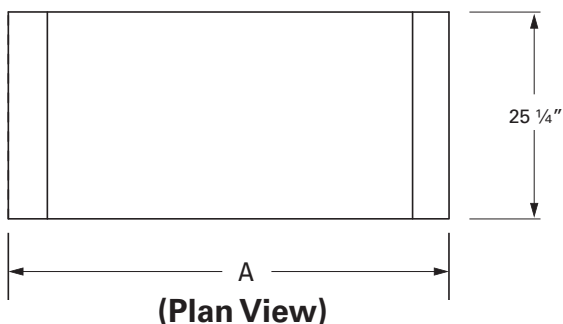
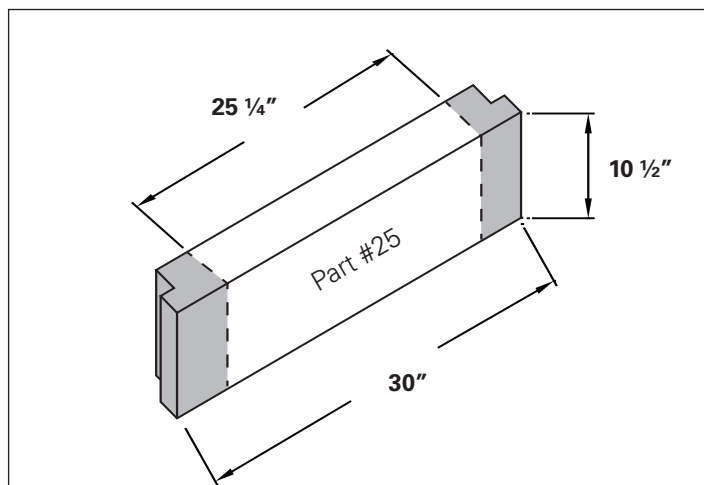


FIGURE 16



NOTE: Two pieces of steel angle iron with measurements of 3" x 3" x 1/4" cut to span firebox openings will be needed to assemble the firebox. These items **are not** included in the components and can be sourced locally.

Model 36 Components

Component	Part#	Description
	21	Base & Top Plate (Qty. 2)
	25	Back wall (Qty. 6)

Model 42 Components

Component	Part#	Description
	22	Base & Top Plate (Qty. 2)
	25	Back wall (Qty. 6)

Model 46 Components

Component	Part#	Description
	23	Base & Top Plate (Qty. 2)
	25	Back wall (Qty. 6)

Firebrick Installation

The manufacturer requires for the 36, 42 and 46 model fireboxes be lined with a minimum (1 1/8") thick firebrick. Thicker firebrick may be used as an option. The pattern for the firebrick lining is an owner option. The ISOSET mortar by Earthcore is to be used when lining the Isokern Firebox.

ISOSET FIREBRICK MORTAR APPLICATION:

- Add .75 quarts of water per 10 lbs of dry product until completely blended.
- Only mix what can be utilized within 15 minutes.
- Do not retemper (the addition of water after the chemical reaction has begun).
- The use of warm water will accelerate setup.
- Joint thickness should be thin (1/4" - 3/8")
- Complete set time is between 48 and 72 hours.
- For best results, please allow 28 days before heat is applied.
- Approximately 35 to 40 lbs of prepared mortar will lay up one hundred 9x4 1/2 x 2 1/2" Straights.
- **DO NOT add additives, such as fireclay, sand, cement, or other accelerators.**

These instructions may vary because of different climates and conditions. The use of good masonry practices for your area should also be considered.

INSTALLATION INSTRUCTIONS:

1. Wet mop the inside of the fireplace with a damp sponge to remove dust and loose particles from the interior before installing firebrick. Keep the fireplace damp while installing firebrick.

FOR BEST RESULTS:

- 1) After wet sponged interior of firebox apply a 1/4 notch bed joint on rear sides and floor.**
- 2) Dip each firebrick in a pale of water before applying mortar to one side for adherence to firebox.**

2. Face joint dimension of 1/4" - 3/8" in the brick work is recommended and has the best appearance. Other face joint dimensions are acceptable; however, smaller joints may not leave room for heat expansion of firebrick.

3. Start the firebrick at the front edge of the floor of the Isokern firebox, proceeding inward toward the back. Let the floor brick gap approximately 1/2" off the back wall and side walls. This air space allows heat expansion of the firebrick and is to be left empty of mortar (**Figure 17**).

4. Next, apply firebrick to the back wall of the unit. The back wall firebrick covers the 1/2" expansion gap left at the brick floor along the back wall of the firebox (**Figure 18**).

5. Set the side wall firebrick by starting at the front edge of the unit's side wall and working inward toward the back wall firebrick. The side wall firebrick, when completed, covers the 1/2" expansion gaps where both the floor firebrick and the back wall firebrick were held off the units side walls (**Figure 19**).

All required through-wall accesses (gas and air intake supply access holes) should be drilled before the required firebrick lining is installed. Do not cover these areas with firebrick.

FIGURE 17

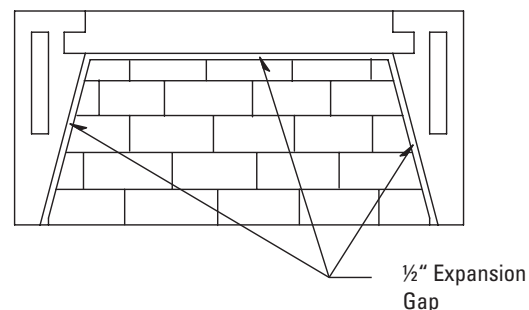


FIGURE 18

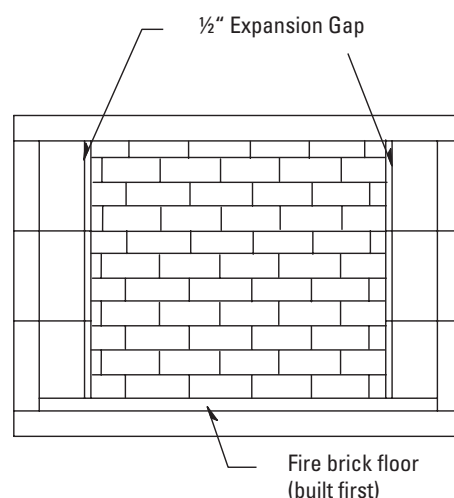
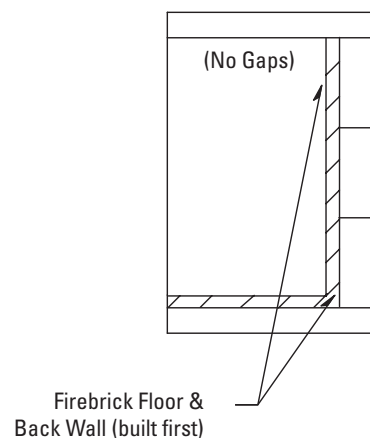


FIGURE 19



Earthcore makes no claims as to the performance of rebrick or rebrick mortar(s). It is typical for heat stress cracks to appear in the rebrick in replaces.

Access Modification: Gas Line & Electrical Line Feed

GAS LINE & ELECTRICAL LINE FEED

The provision for installation of a gas pipe is only for connection to a decorative gas appliance. The decorative gas appliance must comply with standard for Decorative Gas Appliances for installation in Vent-Free Fireboxes, ANSI Z21.11.2 2013. The decorative gas appliance should be installed in accordance with the National Fuel Gas Code, ANSI Z223.1.

IMPORTANT: If a gas burning decorative appliance is installed, look for and only use an A.G.A. Certified Vent-Free Gas Log. Anytime a gas fired appliance is in use, it is recommended that a carbon monoxide detector be installed.

A gas line for gas log sets used in the Vent-Free Firebox can be routed through the side wall, back wall, or floor of the firebox by drilling an appropriately sized hole using a masonry drill bit (**Figure 20**).

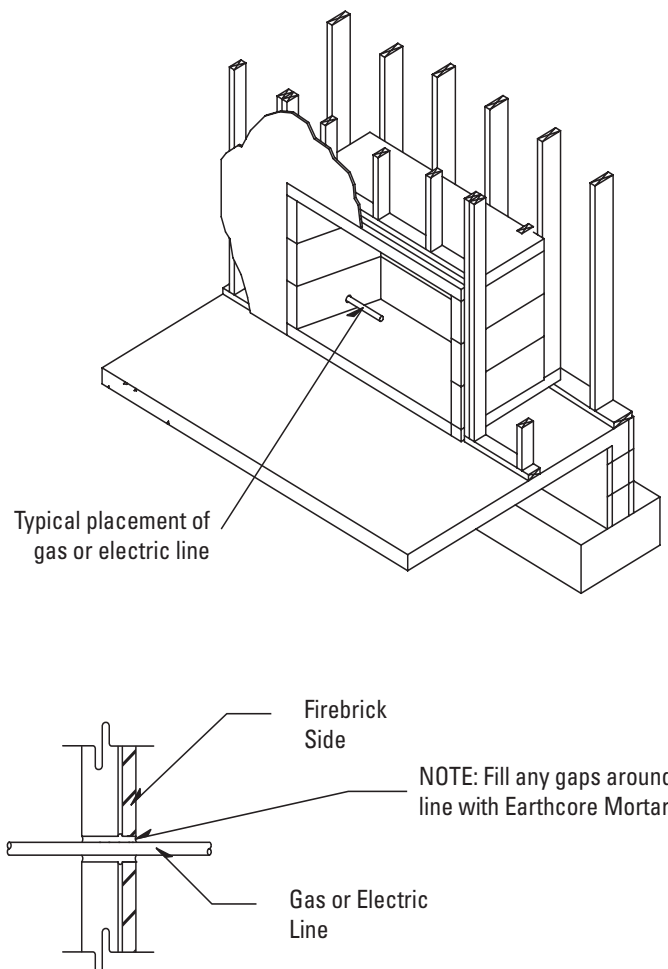
An electrical line feed can be routed through the firebox back wall, side walls, or floor by drilling an appropriately sized hole using a masonry drill bit.

Be sure to follow the Gas Log Appliance Manufacturer's explicit electrical line connection instructions for Vent-Free masonry fireplace installations.

NOTE: The gas line and electric line must be fed through separate access holes.

IMPORTANT: All access holes must be grouted with mortar to seal any gaps or cracks.

FIGURE 20



Clearance to Combustible Trim

The Vent-Free Firebox is designed to be custom finished with facing trim and mantel to be at owner option. However, all such trim material must meet standard fireplace code requirements: non-combustible facing material must be applied to a minimum of eight inches (8") beyond the sides of the finished opening of the Vent-Free Firebox and non-combustible facing material must cover a minimum of twelve inches (12") above the finished opening of the installed unit. (Reference Intertek Testing Services Report No. 13001A-764.)

Clearance to combustible trim are those distances required to ensure that combustible mantel and facing material will not be exposed to excessive heat while the unit is operating. These clearances should be adequate to prevent discoloration or warping of trim facings due to heat. However, circumstances unique to each installation create variables that may be beyond the scope of this manual. **Therefore, be sure to follow the gas log appliance manufacturer's explicit installation instructions regarding all minimum trim facing, mantel height, and side wall clearance requirements.**

INTERIOR WALL MATERIALS

Wall materials, such as drywall, should be set flush with the rough front face of the Vent-Free Firebox. This will allow for placement of required noncombustible surround material in such a way that the surround material can lay flat against the finished wall surface and also align with the leading edge of the fire brick interior of the Vent-Free Firebox.

TRIM FACINGS

Parts of the combustible mantel assembly located along the sides of the firebox opening, which project more than one and one-half inches (1-1/2") from the face of the firebox, shall be kept at least eight inches (8") from the firebox opening.

ADJOINING ROOM WALLS

Interior wall surfaces of adjoining room walls must be at a minimum horizontal measure of twenty four inches (24") away from the finished opening of the Vent-Free Firebox.

MANTEL AND MANTEL SHELF CLEARANCE

Vent-Free Fireboxes are subject to the same building code safety clearances from the firebox opening as with any fireplace opening:

Parts of the combustible mantel assembly located above and projecting more than one and one-half inches (1-1/2") inches from the firebox opening shall be kept at least twelve inches (12") from the top of the opening.

Mantel shelves with horizontal projection of twelve inches (12") from the face of the fireplace must be held to a minimum vertical distance of thirty inches (30") from the top of the finished fireplace opening.

IMPORTANT: Mantel height clearances may vary among gas log appliance manufacturers. Be sure to follow the gas log appliance manufacturer's explicit installation instructions for mantel height clearance requirements.

FIGURE 21

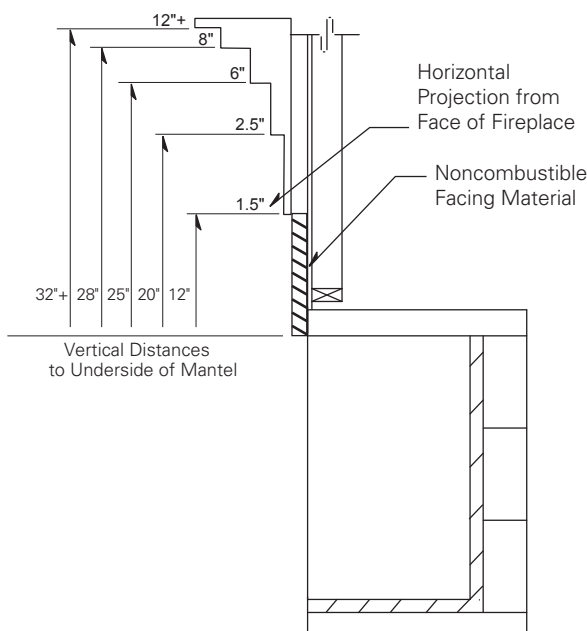
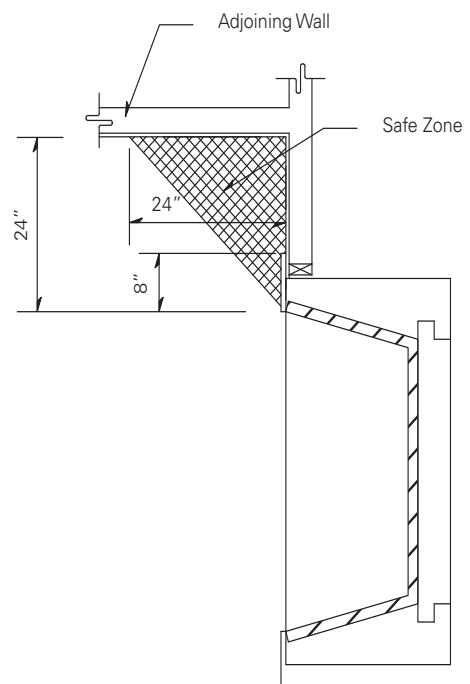


FIGURE 22



Summary

1. Maintenance

The Vent-Free Firebox does not require any routine maintenance procedure. However, the owner must follow the gas log manufacturer's explicit instructions regarding burner limitations, burner adjustment, maintenance, and cleaning. Any and all questions and concerns regarding the performance of gas log sets must be directed to the gas log appliance manufacturer or the appliance manufacturer's agent or supplier.

2. Dual Listed Appliance

The Vent-Free Firebox is certified with the use of dual-listed unvented gas log heaters with a maximum output of 40,000 BTUs. Do not burn any other type of vented gas log, fire wood, paper or refuse in the Vent-Free Firebox.

3. Fuel

Do not introduce any type of fuel into the Vent-Free Firebox other than the LP or Natural Gas listed for use in the Vent-Free gas log appliance manufacturer's explicit installation instructions.

4 . Electronic Equipment

Do not place electronic equipment, such as television sets, DVD players, audio equipment, or computer equipment directly above the Vent-Free Firebox.

5. Structural Loads

Do not bear structural members nor set structural loads on top of the Vent-Free Firebox, as it is designed to carry none other than its own dead weight.

CAUTION: Do not touch hot surfaces surrounding this unit while it is in operation. Keep infants, toddlers and children away from the Vent-Free Firebox while it is in operation. Do not leave children unattended while it is in use.

Registration Card

Please tear out along dashed lines and send to:

Earthcore Industries
Attn: Technical Department
6899 Phillips Industrial Blvd
Jacksonville, FL 32256

Dealer _____

Date of Purchase: _____ Date Of Installation: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

Fireplace Size (Circle One): Vent-Free 36" (81036) Vent-Free 42" (81042) Vent-Free 46" (81046)

Fuel Type (Circle One): Natural Gas Propane

Firebox Serial Number: _____

(Located on Rating Plate Inside Firebox)

Buyer: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

Installed By: _____

Address: _____

City, State, Zip: _____

Phone No.: _____

Warranty & Disclaimer

Isokern Vent-Free Gas Firebox

Earthcore offers a lifetime warranty for all Isokern fireboxes, to be free from defects in materials that negatively affect system performance from the date of purchase, subject to the terms and conditions of this limited warranty.

This warranty covers only the above stated components, and NO WARRANTY, EXPRESS OR IMPLIED, EXTENDS TO ANY OF THE HARDWARE, FOOTING, FIRE BRICK OR ACCESSORIES. Factors beyond the manufacturer's control affect fireplace smoking, and puffing, and Earthcore cannot guarantee these aspects of performance.

If a component is found to be defective under the terms of this warranty the party to whom this warranty is extended shall, notify Earthcore, 6899 Phillips Industrial Blvd, Jacksonville, Florida 32256, in writing, by registered mail, within thirty (30) days following the discovery of the defect within the lifetime warranty period. The notice shall contain (1) the date of purchase; (2) place of purchase; (3) address of installation; (4) name, address and phone number of the owner; and (5) a brief description of the defect.

Earthcore, or any division thereof, is not responsible for any labor costs or indirect costs incurred for the replacement of defective components.

Earthcore is not responsible for misuse or mishandling of components. Nothing in this warranty makes Earthcore, or any division thereof, liable in any respect for any injury or damage to the building or structure in which the fireplace has been installed or to persons or property therein arising out of the use, misuse, or installation of properly manufactured ISOKERN product.

EARTHCORE, OR ANY DIVISION THEREOF, SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING OUT OF THE USE OF THE FIREPLACES. ALL SUCH DAMAGES AND EXPENSES ARE HEREBY EXCLUDED.

This warranty is null and void when the fireplace is not installed pursuant to the installation instructions provided by Earthcore or local building codes have not been followed completely.

This warranty applies only to those fireplaces installed in the continental United States, Alaska, and Canada. If any part of this warranty is found to be unenforceable, the remaining parts shall remain in force and effect.

EARTHCORE HEREBY DISCLAIMS ALL GUARANTEES AND WARRANTIES, EXPRESS OR IMPLIED, BEYOND THE WARRANTIES SET FORTH HEREIN.

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